Rethinking case reports

Highlighting the extremely unusual can do more harm than good

Jerome R. Hoffman, MA, MD
Professor of Medicine
Emergency Medicine Center
924 Westwood Blvd
Los Angeles, CA
jrh@ucla.edu

In this month's transitional issue of the *WJM*, Wilkes et al. present the first in what we hope will be an innovative and informative series of case presentations, designed to bridge what is sometimes seen as a large gap between evidence based medicine (EBM) and clinical practice. It is important to contrast these presentations with traditional "case reports" found in many journals, as well as to address the role we hope they will play in helping transform the *WJM* into a reader-friendly yet erudite and sophisticated resource for clinicians in both community and academic practice.

Case reports are typically designed to highlight extremely unusual findings. Such reports generally take one of three forms: they describe a new or innovative treatment or approach to a particular disease, they address a rare condition, or they highlight very unusual manifestations of a common problem. Although each of these may be worth reporting, their utility for clinicians is likely to be extremely limited.

The first type of case report (describing a new approach or treatment) can raise a hypothesis that deserves further testing. Examples include the few case reports and small case series which suggested a possible role for high dose epinephrine in cardiac arrest, or those describing successful outcomes following serum alkalinization for tricyclic antidepressant poisoning. It would be foolhardy, however to translate the results derived in such noncontrolled "n of one" experiments to general clinical practice without much stronger evidence; indeed in many if not most such instances, the posited intervention has not proven useful when subjected to formal investigation.

Although the second type of case report (describing a rare condition) is also limited in utility, it remains useful because by definition there are not enough subjects who have any rare problem to allow it to be studied more rigorously. Nevertheless, by the same definition, few generalist clinicians will encounter such problems, and those who do are probably better served to consult textbooks for information about them. This is because by their nature these case reports do not present definitive evidence about the disease in question, and may focus on or stress elements that are misleading to physicians with extremely limited experience in dealing with the problem in question. While the opinions of experts (like those who are called upon to write book chapters) is subjective, it is undoubtedly helpful, in the absence of definitive evidence, to filter whatever information is available (including case reports) through their eyes.

The third type of case report, which describes a rare manifestation of a ubiquitous condition, is by far the most common, and unfortunately is far more likely to do harm than good. If an enterprising clinician tried to advance his or her career by writing up a case of an alcoholic patient whose gait was ataxic after a drinking binge, he or she would find it extremely difficult to find any journal willing to publish the case. Why? Because ataxia is an almost inevitable result of alcohol intoxication, and although it is a very useful finding, it is obviously familiar to most clinicians. If, on the other hand, the same author submitted a manuscript describing a patient who began to play the Bach Partitas and Sonatas, with perfect pitch and intonation, and great depth of feeling, immediately after an alcoholic binge (even though he had never before played the violin!), prestigious journals would surely vie for the opportunity to publish the case. Why? Because such a thing could never (or almost never) happen!

Indeed, a reasonable clinician, on reading the typical case report of this genre, would do well to take from it the exact opposite of whatever it purported to show. This is because the only reasonable interpretation of such a case is either a) the report is inaccurate (the patient was not drunk, or the beautiful music was actually coming from the CD player situated behind the drunk patient), or b) this was a miraculous event, destined to occur only once in a lifetime—and since it has already happened to the patient in the paper, it will almost certainly not happen again to your patients!

The literature-based case presentations that will appear in *WJM* are intended to be a very different animal. They will concentrate on common problems in primary care, regarding which the authors will be asked to address controversial issues, as well as approaches to diagnosis and treatment that can be supported by available evidence. They are not expected to be systematic reviews, that meet strict EBM standards for identifying and evaluating *all* available evidence. In general such formal reviews can only address limited or narrow questions, given the amount of work (and space) which must be expended on each separate question. Thus for a formal "systematic review" of congestive heart failure, the topic of our first case presentation, there would have to be extensive literature searches, and methodologic evaluations of all articles identified, for *many* separate subtopics, including the ability of different observers to interpret physical findings, the utility of various predictive instruments regarding prognosis, the efficacy of β-blockers and digoxin, the interaction between ACE-inhibitors and aspirin, etc. etc. Such an effort would be frankly prohibitive for our journal, nor do we imagine we could impose on many authors to try to tackle such an enormous task.

Nevertheless our case presentations, although not EBM reviews in a formal sense, remain very different from

both the classical case report model discussed above, and from many standard reviews where, with perhaps an occasional nod to the literature, so-called experts tell us what they do, and that we should do it too, because they're the experts! Written *by* practicing clinicians (with some help from experts, perhaps), and *for* practicing clinicians, these presentations are intended to be practical, down-to-earth, readable, and entirely supportable by the literature (rather than anecdotal experience). Thus they will be based on evidence, even if not formally "Evidence-Based."

WJM also expects to publish EBM-type systematic reviews, from time to time, of narrower clinical questions. These will serve a related, but slightly different, purpose. We believe there is room for both types of exercises, and that readers can benefit from each. Furthermore, we intend to carry a series of papers on the concepts, value, and limitations of EBM, which he hope will help elucidate these matters further. In the meantime, we hope that our case presentations, based on an honest attempt to find answers to clinically important questions about common problems faced in primary care, will be readable and interesting, and help readers improve clinical decision-making and optimize patient care. Happy reading!

Medical Futility

Physicians, not patients, call the shots

see also p.287

Charles Weijer, MD, PhD
Assistant Professor of Medicine
Bioethics Education and Research
Dalhousie University
5849 University Avenue, Room C-105
Halifax, Nova Scotia, CANADA, B3H 4H7
charles.weijer@dal.ca
Website: www.medicine.dal.ca/bioethics
Medical Research Council of Canada Scholar
Dalhousie University Clinical Scholar

The concept of medical futility, and the flurry of institutional policies spawned by it, embraces the normative illegitimacy described in *Through the Looking Glass*. When Alice challenges Humpty Dumpty for using words idiosyncratically, he responds: "'When I use a word,' Humpty Dumpty said, in a rather scornful tone, 'it means just what I choose it to mean—neither more nor less.' 'The question is,' said Alice, 'whether you can make words mean so many different things.' 'The question is,' said Humpty Dumpty, 'which is to be master—that's all.'"[1]

The term medical futility was coined in 1990 as a response to demands from patients and families for treatment thought by physicians to be inappropriate.[2] With the patients' rights movement cresting, it was widely believed that such demands would have to be acceded to unless new grounds for refusal were manufactured. Medical futility is designed, therefore, to be a trump card for physicians.

Futility is a professional judgment that takes precedence over patient autonomy and permits physicians to withhold or withdraw care deemed to be inappropriate without subjecting such a decision to patient approval.[2]

Futility is both unnecessary and philosophically unsound. Medical futility encompasses two kinds of cases. The first case involves treatment that is very unlikely to work. Physicians have never had an obligation to disclose or provide any conceivable treatment. With regard to disclosure of treatment options and the provision of medical interventions, physicians are held to the "standard of care," that is, the range of treatment accepted by at least a minority of expert practitioners. If a treatment is widely accepted as ineffective, it follows that the physician—without need of appeal to the notion of medical futility—has no obligation to disclose or provide such treatment.[3]

Futility's harm comes from its inclusion of a second kind of case.[4] In it the treatment is effective, but the end supported, for example, maintaining a patient in persistent vegetative state, is controversial. Often the question, "What sort of life is worth preserving?" is at the heart of these disputes. Not surprisingly, many of best known cases in the literature involve families who demand continued treatment on the basis of strongly held cultural or religious beliefs.[5] Futility does harm by suggesting that physicians should, "Just say no." Rather, good medicine requires that doctors practice with respect for such beliefs and, therefore, open communication and negotiation is the morally preferred course of action.

One wouldn't guess it from the size of the medical literature on medical futility—445 articles as of January 1999—but disagreements with regard to the provision of life-prolonging care are uncommon. Patients and families disagree with recommendations to limit life-sustaining care infrequently, and these disagreements tend to resolve in a few days.[6] Given this, one has to wonder, "What else is driving the agenda?" Prolonged disputes often involve a substantial disagreement in values between the patient and the physician.

Futility's response to the question, "Which is to be master?" is clear: the values of the physician. Seen this way, futility, and policies based upon it, attempts to exchange shared decisionmaking for medical paternalism; in short, it is an attempt to undo the bulk of moral progress made in medicine over the last thirty years.

References
1. Carroll L. *Alice's Adventures in Wonderland and Through the Looking-Glass*. New York: Oxford University Press, 1982:190.
2. Schneiderman LJ, Jecker NS, Jonsen AR. Medical futility: its meaning and ethical implications. *Ann Intern Med* 1990; 112:949-954.
3. Weijer C, Singer PA, Dickens BM, Workman S. Bioethics for clinicians: 16. Dealing with demands for inappropriate treatment. *Can Med Assoc J* 1998 159: 817-821.
4. Weijer C, Elliott C. Pulling the plug on futility. *Br Med J* 1995; 310: 683-684.
5. Weijer C. Cardiopulmonary resuscitation for patients in persistent vegetative state: futile or acceptable? *Can Med Assoc J* 1998; 158: 491-493.
6. Smedira NG, Evans BH, Grais LS, Cohen NH, Lo B, Cooke M, et al. Withholding and withdrawal of life support from the critically ill. *N Engl J Med* 1990; 322:309-315.